



2011 – 12 DEGREE REQUIREMENTS WORKSHEET
MSC/CU-Boulder Mechanical Engineering
Partnership Program
www.mesastate.edu/engineering



Name: _____ MSC Id #: _____

IMPORTANT NOTE: This sheet is only a worksheet to track your progress in the MSC/CU-Boulder Mechanical Engineering Partnership Program. An official review of your coursework will be performed by CU administration to ensure completion of all graduation requirements.

*****Students should work closely with a faculty advisor when selecting and scheduling courses prior to registration.**

Minimum credits to graduate: 128 hrs

MSC/CU-BOULDER MECHANICAL ENGINEERING
REQUIRED COURSES:

Course No	Title	Sem.hrs	Grade	Term	Trns
Mathematics and Computer Science: 22 semester hours					
MATH 151	Calculus I	5	_____	_____	_____
MATH 152	Calculus II	5	_____	_____	_____
MATH 253	Calculus III	4	_____	_____	_____
MATH 236	Differential Equations & Linear Algebra	4	_____	_____	_____
CSCI 130	Intro to Engr Computing	3	_____	_____	_____
Physical Science: 18 semester hours					
PHYS 131	Fundamental Mechanics	4	_____	_____	_____
PHYS 131L	Fundamental Mechanics Laboratory	1	_____	_____	_____
PHYS 132	Electromagnetism & Optics	4	_____	_____	_____
PHYS 132L	Electromagnetism & Optics Laboratory	1	_____	_____	_____
PHYS 231	Modern Physics	3	_____	_____	_____
CHEM 131	General Chemistry	4	_____	_____	_____
CHEM 131L	General Chemistry Laboratory	1	_____	_____	_____
English: 3 semester hours					
ENGL 425	Scientific Writing	3	_____	_____	_____
Machining: 1 semester hour					
MAMT 102	Machining Fundamentals	1	_____	_____	_____
Basic Engineering: 18 semester hours					
ENGR 125	CAD and Fabrication	3	_____	_____	_____
ENGR 140	1st-Year Engr Projects	3	_____	_____	_____
ENGR 224	Materials Science	3	_____	_____	_____
ENGR 261	Statics and Structures	3	_____	_____	_____
ENGR 262	Dynamics	3	_____	_____	_____
ENGR 263	Mechanics of Solids	3	_____	_____	_____
CU-Boulder Mechanical Engineering Courses: 40 semester hours					
MCEN 3012	Thermodynamics	3	_____	_____	_____
MCEN 3017	Circuits & Electronics	3	_____	_____	_____

Course No	Title	Sem.hrs	Grade	Term	Trns
MCEN 3021	Fluid Mechanics	3	_____	_____	_____
MCEN 3022	Heat Transfer	3	_____	_____	_____
MCEN 3025	Component Design	3	_____	_____	_____
MCEN 3030	Computational Methods	3	_____	_____	_____
MCEN 3037	Exptl Design & Data Analysis	2	_____	_____	_____
MCEN 3122	Thermodynamics 2	3	_____	_____	_____
MCEN 4026	Manufacturing Processes & Systems	3	_____	_____	_____
MCEN 4037	Measurements Laboratory	2	_____	_____	_____
MCEN 4043	System Dynamics	3	_____	_____	_____
MCEN 4045	ME Design Project 1	3	_____	_____	_____
MCEN 4047	Mechanical Engineering Laboratory	2	_____	_____	_____
MCEN 4085	ME Design Project 2	4	_____	_____	_____

ELECTIVE COURSES:

Humanities and Social Science: 15 semester hours (6 hours must be upper division). Check website for complete list of courses.

9 semester hours Lower Division Humanities & Social Science

6 semester hours Upper Division Humanities & Social Science

Technical Electives: 12 semester hours (6 hours MCEN and 6 hours upper division math, science or engineering courses).

MCEN	_____	_____	_____	_____	_____
MCEN	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



**Suggested Course Sequencing for the
MSC/CU-Boulder Mechanical Engineering
Partnership Program**



This is a recommended sequence of course-work. Certain courses may have prerequisites or are only offered during the fall or spring semesters. It is the responsibility of the student to meet regularly with their assigned advisor.

Freshman Year

<i>FALL SEMESTER</i>		<i>Credit Hr</i>	<i>SPRING SEMESTER</i>		<i>Credit Hr</i>
MATH 151	Calculus I	5	MATH 152	Calculus II	5
PHYS 131	Fundamental Mechanics	4	PHYS 132	Electromagnetism & Optics	4
PHYS 131L	Fundamental Mechanics Lab	1	PHYS 132L	Electromagnetism & Optics Lab	1
ENGR 125	CAD & Fabrication	3	ENGR 140	1 st Year Engineering Projects	3
MAMT 102	Fundamental Machining	1	CSCI 130	Introduction to Engineering Computing	3
	Hum/Soc Sci Elect (Lower Div)	3			
	TOTAL	17		TOTAL	16

Sophomore Year

<i>FALL SEMESTER</i>		<i>Credit Hr</i>	<i>SPRING SEMESTER</i>		<i>Credit Hr</i>
MATH 253	Calculus III	4	MATH 236	Differential Equations & Linear Algebra	4
CHEM 131	General Chemistry	4	ENGR 262	Dynamics	3
CHEM 131L	General Chemistry Lab	1	ENGR 263	Mechanics of Solids	3
ENGR 261	Statics & Structures	3	PHYS 231	Modern Physics	3
ENGR	Materials Science	3		Hum/Soc Sci Elect (Lower Div)	3
	TOTAL	15		TOTAL	16

Junior Year

<i>FALL SEMESTER</i>		<i>Credit Hr</i>	<i>SPRING SEMESTER</i>		<i>Credit Hr</i>
MCEN 3012	Engineering Thermodynamics	3	MCEN 3022	Heat Transfer	3
MCEN 3017	Electronics & Circuits	3	MCEN 3025	Component Design	3
MCEN 3021	Fluid Mechanics	3	MCEN 3037	Experimental Design & Data Analysis	2
MCEN 3030	Computational Methods	3	MCEN 3122	Thermodynamics 2	3
	Hum/Soc Sci Elect (Lower Div)	3	ENGL 425	Scientific Writing	3
				Hum/Soc Sci Elect (Upper Div)	3
	TOTAL	15		TOTAL	17

Senior Year

<i>FALL SEMESTER</i>		<i>Credit Hr</i>	<i>SPRING SEMESTER</i>		<i>Credit Hr</i>
MCEN 4026	Manufacturing Processes & Sys	3	MCEN 4047	ME Laboratory	2
MCEN 4043	Systems Dynamics	3	MCEN 4085	ME Design Project 2	4
MCEN 4037	Measurements Lab	2		MCEN Technical Elective	3
MCEN 4045	ME Design Project 1	3		General Technical Elective	3
	MCEN Technical Elective	3		General Technical Elective	3
	Hum/Soc Sci Elect (Upper Div)	3			
	TOTAL	17		TOTAL	15

Black – MSC courses, red – CU courses

Total Credit Hours = 128

Updated 4/5/2011